

Koch, Kristine

From: Wyatt, Robert <rjw@nwnatural.com>
Sent: Monday, November 16, 2015 6:19 PM
To: Sheldrake, Sean; Koch, Kristine
Cc: Grandinetti, Cami; Kirkpatrick, Margaret; Zhen, Davis; Christopher, Anne; Fonseca, Silvina; Legare, Amy; Anderson, RobinM; Carl Stivers; Ryan Barth; bhung@anchoragea.com; Jennifer Woronets; pdost@pearllegalgroup.com; Burr, Myron
Subject: Gasco EE/CA Meeting: Follow-up Information
Attachments: 2009 SOW Waste Management Framework.pdf; Gasco AOC and SOW.PDF

Sean and Kristine,

Thanks again for taking the time to meet with the NW Natural team on November 2 to discuss the Gasco EE/CA and opportunities to use that site specific evaluation to further refine EPA's FS approach for that area of Portland Harbor. During the meeting we agreed that our team would provide you feedback on the flow charts to assure they are not inconsistent with the Gasco AOC/SOW and EE/CA. For your convenience, the Gasco AOC/SOW is attached, and the EE/CA can be downloaded from this link:

<https://projects.anchoragea.com/sites/GascoSediments>

Username: Gasco Sediments

Password: s3dim3nts-3

Then click on the "Agency Review" link to access the folder

Here is our feedback on the flowcharts, including the attached 2009 SOW Waste Management Framework summary. Please let us know if you have any questions. We look forward to continuing our work on the Gasco specific subarea.

Page 1 Post-FS Process Flow Chart – Nav-FMD Branch

1. **Recommend changing the “PTW?” diamond text to “PTW Remaining?”** . This would help clarify that this diamond refers to the unremoved inventory of PTW remaining following dredging to the DOCR plus one additional foot.
2. **Recommend adding a footnote to the PTW? diamond that clarifies this applies to all forms of PTW identified in the FS.**
3. **Recommend “Groundwater Plume?” yes branch lead to “Site-specific Analysis”** . The assessment of groundwater discharge impacts to a sediment remedy needs to consider a host of site-specific factors. Section 3.6.3.4 of the Gasco SOW specifically accounts for these factors by stating that the Gasco “Cleanup alternatives shall be evaluated in the context of upland groundwater source controls, which will be implemented by this time, including:
 - Reviewing groundwater seepage rate reductions as measured or predicted for upland source control performance
 - Apply the most up to date estimates of groundwater seepage rates and chemical concentrations (as measured or extrapolated) for evaluation of attenuation (i.e, MNR), capping, and dredging alternatives and their long term effectiveness.
 - Evaluating attenuation rate predictions for groundwater and TZW that will not be directly remediated by upland source controls.”

The shown presumptive use of a “Reactive Residual Layer or Reactive Cap” may not be necessary or protective for a documented groundwater plume. The necessary groundwater plume evaluations that will

need to be addressed during remedial design can be summarized in the Proposed Plan text, similar to the above provided text in the Gasco SOW.

Page 1 Post-FS Process Flow Chart – Nearshore Branch

1. The shown functional structure determination does not cover the myriad of specific structure situations that occur throughout harbor. In addition, many of these branches lead to the “Dredge and Cap Tree” , even when the outcome of that tree conflicts with the functional structural determination. **Suggest functional structure removal decision be moved to the “Dredge and Cap Tree” . The “Room for cap design?” and “DSL Authorized Cap?” decisions could be included as additional capping demonstrations that take place under structures.** If EPA maintains the functional structure determination outside of the “Dredge and Cap Tree” , the recommendations 2-4 for the nearshore branch apply.
2. **Suggest removal of “Consult with Services” box** and inclusion of text in the Proposed Plan that describes the use of a standard Biological Assessment process for all remediation areas (either Harborwide or subarea specific). The current flow chart only shows the need for consultation with the Services under structures but not elsewhere in nearshore. Section 3.6.4 of the Gasco Sediments SOW requires a comprehensive BA and CWA analysis, and these evaluations were submitted with the draft EE/CA.
3. **Suggest either removing the specific “Implement mitigation” box or adding other mitigation boxes where triggered in other parts of the decision tree.** If removed, we suggest including text in the Proposed Plan that describes the necessary evaluations for mitigation and application when and where necessary. The current flow chart only shows the need for implementing mitigation under structures but not elsewhere in nearshore.
4. **Suggest replacement of bottom branch “Reliably contained with cap?” to “Dredge and Cap Tree” and removal of both the subsequent “Significantly Augmented Cap” and “Remove structure and material or contain in 3D” boxes.** The appropriate requirements for residuals management and/or structure removal should be based on site-specific evaluations during remedial design that are identified in the “Dredge and Cap Tree” . Section 3.6.3.1 of the Gasco SOW specifically allows for site-specific evaluations by stating “Consistent with this risk management framework, dock removal’ s substantial cost will be weighed against the amount of product underneath which could be removed (in the event deep cores cannot be taken underneath the dock, likely substantial product depths will be interpolated from surrounding cores on at least the upstream, downstream, and riverward side), and the long - term effectiveness of such action as compared to other actions, in the context of a final remedy evaluation. Other factors that will be specifically considered include:
 - Limitations for sediment removal related to dock stability
 - Extent to which various technologies and alternatives can be adapted to minimize business interruptions
 - Technologies for cleanup under existing docks while in place such as:
 - sediment removal
 - capping in place
 - in-place stabilization
 - in-situ treatment
 - and others as identified.”

Page 2 Post-FS Process Flow Chart – Dredge Branch

1. See recommendations 1, 2, and 3 included above for Page 1 Nav/FMD Branch.

Figure 3.3 - 40. Sediment and Soil Disposal Decision Tree

As discussed during the November 2 meeting, the decision tree should be revised so it is consistent with the waste management framework identified in the Gasco Sediments Site 2009 Statement of Work (SOW; see attached). As agreed during the meeting, attached please find a narrative summary of the 2009 SOW requirements for all types of potential remediation wastes that might be encountered at the Gasco Sediments Site. **The EPA sediment and soil disposal decision tree should be revised to assure consistency with these provisions.**

Thank you,

Bob

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